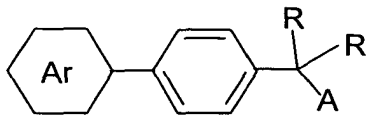
CLAIMS

1. A bisaryl derivative of the formula I,

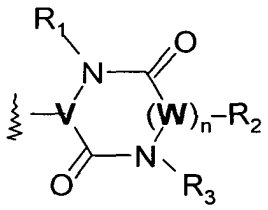


(I)

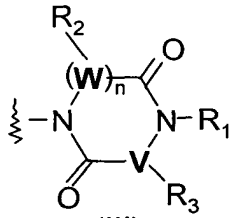
wherein (R,R) is selected from (H,H), O, (H,CH_3), (H,OH) and (H,CN);

and wherein

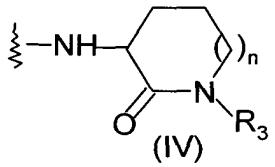
A is a group of formula II, III, IV or V:



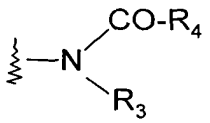
(II)



(III)



(IV)



(V)

wherein

n is 0, 1, or 2;

R_1 is H, (C_1-C_6)alkyl;

V is CH or N;

W is CR_2' or N if n is 1 and **W** is CR_2' if n is 2;

and **V** and **W** are not both N;

R_2 and R_2' are independently H, (C_1-C_4)alkyl or $-CH_2OH$;

R_3 is (C_1-C_{15}) alkyl, which may optionally be branched or unbranched and optionally may contain a double or triple bond at one or more positions, or R_3 is -$(CH_2)_q$-O-(C_1-C_4)alkyl, -$(CH_2)_q$-(C_3-C_8)cycloalkyl, -$(CH_2)_q$-tetrahydrofuranyl, -$(CH_2)_q$-thiophenyl, -$(CH_2)_q$-1,4-benzodioxol-6-yl,

$-(CH_2)_q$-phenyl, $-(CH_2)_q$-S-phenyl, or $-(CH_2)_q$-O-phenyl, wherein phenyl may be optionally substituted with $(C_1–C_6)$alkyl, (C_1-C_4) alkoxy, halogen, amino, or dimethylamino, wherein q is an integer of 1-10;

or R_3 is $-(CH_2)_x-C(O)-NR_5-R_6$ wherein

R_5 is H or $(C_1–C_4)$alkyl,

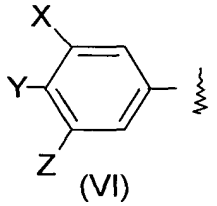
R_6 is $-(CH_2)_p$-O-(C_1-C_4)alkyl, $-(CH_2)_p-(C_3-C_8)$cycloalkyl, $-(CH_2)_p$-tetrahydrofuranyl, $-(CH_2)_p$-thiophenyl, $-(CH_2)_p$-1,4-benzodioxol-6-yl, $-(CH_2)_p$-phenyl, $-(CH_2)_p$-S-phenyl, or $-(CH_2)_p$-O-phenyl, wherein phenyl may be optionally substituted with $(C_1–C_6)$alkyl, (C_1-C_4) alkoxy, halogen, amino, or dimethylamino,

wherein x and p are integers, and x is ≥ 1 and $p > 1$ and $x + p = 3 - 8$;

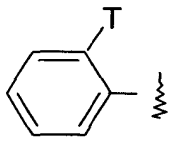
or R_3 is $-(CH_2)_y-C(O)-NR_5-(C_1-C_{12})$alkyl, wherein the alkyl moiety may optionally be branched or unbranched and optionally may contain a double or triple bond at one or more positions, R_5 is as previously defined, y is an integer of 1-12 and the maximal chain length of R_3 is 15 atoms;

R_4 is $(C_2-C_6)n$-alkyl or $(C_2-C_6)n$-alkoxy;

and Ar is of the formula VI or VII:



(VI)



(VII)

wherein

(i) X, Y, Z are independently H, OH, (C_1-C_4)alkyl, (C_1-C_4)alkoxy, provided that at least one of X, Y and Z is not H; or

(ii) two of X, Y and Z are H, the other being –CHO, $–CH_2-NR_7-CH_2-R_8$ or $-CH_2-NR_7-CO-R_8$, wherein R_7 is H, $(C_1-C_6)n$-alkyl or $-(CH_2)_m$-O-(C_1-C_4)alkyl; R_8 is (C_1-C_4)alkyl, (C_1-C_4)alkoxy, (C_1-C_4)alkoxy-(C_1-C_4)alkyl, amino or (C_1-C_4)alkyl-NH-; and m being 2-6; and

(iii) T is $-CH_2-NR_9R_{10}$, wherein R_9 is $(C_1-C_6)n$-alkyl and R_{10} is (C_2-C_5)acyl, (C_1-C_4)alkoxycarbonyl or (C_1-C_4)alkyl-NH-CO-.

2. The bisaryl derivative of claim 1, wherein (R,R) is (H,H).

3. The bisaryl derivative of claim 2, wherein A is a group of formula II.

4. The bisaryl derivative of claim 3, wherein

n is 0, 1, or 2;

R_1 is $(C_1\text{-}C_4)$alkyl;

V is CH;

W is CR_2' ;

R_2 and R_2' are independently H, $(C_1\text{-}C_4)$alkyl or $\text{-}CH_2OH$; and

R_3 is $(C_1\text{-}C_{15})$ alkyl, which may optionally be branched or unbranched and optionally may contain a double or triple bond at one or more positions, or R_3 is $\text{-}(CH_2)_q\text{-}O\text{-}(C_1\text{-}C_4)$alkyl, $\text{-}(CH_2)_q\text{-}(C_3\text{-}C_8)$cycloalkyl, $\text{-}(CH_2)_q$-phenyl, $\text{-}(CH_2)_q\text{-}S$-phenyl, or $\text{-}(CH_2)_q\text{-}O$-phenyl, wherein phenyl may be optionally substituted with $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_4)$ alkoxy, halogen, amino, or dimethylamino, wherein q is an integer of 1-10;

or R_3 is $\text{-}(CH_2)_x\text{-}C(O)\text{-}NR_5\text{-}R_6$, wherein

R_5 is H or $(C_1\text{–}C_4)$alkyl,

R_6 is $\text{-}(CH_2)_p\text{-}O\text{-}(C_1\text{-}C_4)$alkyl, $\text{-}(CH_2)_p\text{-}(C_3\text{-}C_8)$cycloalkyl, $\text{-}(CH_2)_p$-phenyl, $\text{-}(CH_2)_p\text{-}S$-phenyl, or $\text{-}(CH_2)_p\text{-}O$-phenyl, wherein phenyl may be optionally substituted with $(C_1\text{–}C_6)$alkyl, $(C_1\text{-}C_4)$ alkoxy, halogen, amino, or dimethylamino,

wherein x and p are integers, and x is ≥ 1 and $p > 1$ and $x + p = 3 - 8$;

or R_3 is $\text{-}(CH_2)_y\text{-}C(O)\text{-}NR_5\text{-}(C_1\text{-}C_{12})$alkyl, wherein the alkyl moiety may optionally be branched or unbranched and optionally may contain a double or triple bond at one or more positions, R_5 is as previously defined, y is an integer of 1-12 and the maximal chain length of R_3 is 15 atoms.

5. The bisaryl derivative of claim 4, wherein n is 1; R_1 is methyl; and R_2 and R_2' are independently H or methyl; and Ar is of the formula VI.

6. The bisaryl derivative of claim 5, wherein R_3 is -CH_2-C(O)-NH-$(CH_2)_p$-phenyl, wherein p is 2-4 and phenyl may be optionally substituted; and Ar is of the formula VI, wherein X, Y and Z are all methoxy, or X and Z are methoxy and Y is OH, or X and Y are both H, and Z is -CH_2-NR_7-CO-R_8.

7. The bisaryl derivative of claim 5, wherein R_3 is $(C_1$-$C_{15})$alkyl, which may optionally be branched or unbranched and optionally may contain a double or triple bond at one or more positions, or R_3 is -$(CH_2)_q$-O-$(C_1$-$C_4)$alkyl, -$(CH_2)_q$-$(C_3$-$C_8)$cycloalkyl, -$(CH_2)_q$-phenyl, -$(CH_2)_q$-S-phenyl, or -$(CH_2)_q$-O-phenyl, wherein phenyl may be optionally substituted with $(C_1$-$C_6)$alkyl, $(C_1$-$C_4)$alkoxy, halogen, amino, or dimethylamino; and Ar is of the formula VI, wherein X, Y and Z are all methoxy, or X and Z are methoxy and Y is OH, or X and Y are both H, and Z is -CH_2-NR_7-CO-R_8.

8. The bisaryl derivative of claim 7, wherein R_2 is methyl and R_2' is H or R_2 and R_2' are both methyl; R_3 is an unbranched $(C_7$-$C_{10})$ *n*-alkyl, optionally containing one or two double bonds, or R_3 is selected from -$(CH_2)_r$-$CH(CH_3)_2$, -$(CH_2)_r$-phenyl and –$(CH_2)_t$-S-phenyl, r being 5-8 and t being 4-7; and Ar is of the formula VI, wherein X, Y and Z are all methoxy, or X and Z are methoxy and Y is OH, or X and Y are both H, and Z is -CH_2-NR_7-CO-R_8, wherein R_7 is *n*-butyl or -$(CH_2)_2$-O-CH_3 and R_8 is –CH_3, -$NHCH_3$ or –OCH_3.

9. The bisaryl derivative of claim 8, wherein R_3 is *n*-octyl and Ar is of the formula VI, wherein X and Y are both H, and Z is -CH_2-NR_7-CO-R_8, wherein R_7 is *n*-butyl or -$(CH_2)_2$-O-CH_3 and R_8 is -CH_3, -$NHCH_3$ or –OCH_3.

10. The bisaryl derivative of claim 4, wherein n is 1, R_1 is *n*-butyl, R_2 and R_2' are independently H or methyl and R_3 is –CH_2-CO-NH-$(C_4$-$C_{10})$alkyl, wherein the alkyl moiety is branched or unbranched, or –CH_2-CO-NH-R_6, wherein R_6 is -$(CH_2)_p$-cyclohexyl or -$(CH_2)_p$-phenyl, the phenyl being optionally substituted with $(C_1$-$C_6)$alkyl or halogen and p being 2-4.

11. The bisaryl derivative of claim 2, wherein A is a group of the formula III.

12. The bisaryl derivative of claim 11, wherein n is 0 or 1, R_1 is H or methyl, **V** is CH, **W** is CH, R_2 is H or methyl, R_3 is (C_4-C_{10})*n*-alkyl or -CH_2-C(O)-NH-(C_4-C_{10})*n*-alkyl, and Ar is of the formula VI, wherein X, Y and Z are methoxy.

13. The bisaryl derivative of claim 2, wherein A is a group of formula IV.

14. The bisaryl derivative of claim 13, wherein Ar is of the formula VI, wherein two of X, Y and Z are H, the other being -CH_2-NR_7-CO-R_8, wherein R_7 is (C_1-C_6)*n*-alkyl and R_8 is (C_1-C_4)alkyl or (C_1-C_4)alkyl-NH-.

15. The bisaryl derivative of claim 14, wherein R_3 is -CH_2-CO-NH-R_6, wherein R_6 is -$(CH_2)_p$-phenyl, the phenyl being optionally substituted with halogen and p being 2-4.

16. The bisaryl derivative of claim 2, wherein A is a group of the formula V.

17. The bisaryl derivative of claim 16, wherein Ar is of the formula VII.

18. The bisaryl derivative of claim 17, wherein R_3 is -CH_2-CO-NH-(C_1-C_4)*n*-alkyl or -CH_2-CO-NH-$(CH_2)_p$-(C_3-C_8)cycloalkyl, p being 2-4.

19. A pharmaceutical composition comprising the compound of claim 1 and a pharmaceutically acceptable carrier.

20. A method of treating infertility comprising administering to a mammal a compound according to claim 1.

21. A method of preventing conception comprising administering to a mammal a compound according to claim 1.